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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/685,304	10/10/2000	Wen-Shi Huang	00766	4350

7590 10/14/2003

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EXAMINER

ADDISON, KAREN B

ART UNIT	PAPER NUMBER
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2834

DATE MAILED: 10/14/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

AD

Office Action Summary	Application No.	Applicant(s)	
	09/685,304	HUANG ET AL.	
	Examiner	Art Unit	
	Karen B Addison	2834	

-- The MAILING DATE of this communication appears on the cover sheet with the corresponding address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4,5,8,9,11,13 and 14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4,5,8,9,11,13 and 14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 1,4, 8,13 are rejected under 35 U.S.C. 103(a) as being unpatentable over APA in view of Yamada (JP9-56092).

APA discloses a structure for magnetizing a unitary rotor magnet of a motor comprising: a rotor (12) and a stator (11) wherein the stator comprise a plurality of silicon steel sheets (111) wound by coils. Wherein the silicon sheets are symmetrical for the purpose of changing the air gap. However, APA do not disclose a rotor having continuous curve surfaces comprising a plurality of continuous curve surfaces, each curve surfaces having convex and concave portion.

Yamada discloses a permanent magnetic motor in fig. A-A comprising: a rotor (3) being a unitary magnet cylinder bounded by an inner surface and an outer surface, wherein at least one of the surfaces is unitary having continuous curve surfaces and convex (3f) and concave (3g) curve portions for the purpose of improving torque. Therefore, it would have been obvious to one having ordinary skill in the art at the invention was made to modify the permanent magnet motor of APA with the rotor structure of Yamada for the purpose of improving the torque output from the rotor.

2. Claim 5 and 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over APA in view of Yamada as applied to claim 1,4 and 8 above, and further in view of Pletscher(1566693).

As seen in paragraph number 1 above, APA discloses a motor comprising: a unitary rotor magnet and a stator. Yamada discloses a rotor being a unitary magnet cylinder bounded by an inner surface and an outer surface. However, neither APA nor Yamada discloses a stator being a unitary magnet cylinder bounded by an inner and outer continuous curve surface with a plurality of concave and convex surfaces.

Pletscher teaches in fig.12 a motor comprising stator and a rotor wherein the rotor (A) comprises coils that may be made stationary (pg.3 Col.1, line 5-9) for the purpose of reducing manufacturing cost. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the motor of APA and Yamada with the teaching of Pletscher for the purpose of reducing manufacturing cost.

3. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over APA in view of Hayakawa (5162684).

As seen in paragraph number 1 above, APA discloses a motor comprising: a unitary rotor magnet (12) and a stator (11). APA does not disclose a rotor being a unitary magnet with an irregular lumpy edge comprising concave and convex portions with a lumpy edge.

Hayakawa discloses in fig. 8 a structure for a magnetizing rotor motor comprising: a magnetic cylinder (1) with a irregular lumpy edge comprising a plurality of concave and convex surfaces for the purpose of reducing cogging torque. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the motor of APA with the rotor of Hayakawa for the purpose of reducing cogging torque.

4. Claims 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over APA in view of Hayakawa as applied to claim 9 above, and further in view of Pletscher (1566693).

As seen above in paragraph 3, APA discloses a motor comprising: a unitary rotor magnet (12) and a stator (11). Hayakawa discloses a magnetic cylinder with an irregular lumpy edge comprising a plurality of concave and convex surfaces. Neither APA nor Hayakawa discloses a stator being a unitary magnet cylinder with an irregular lumpy edge comprising a plurality of concave surfaces and a plurality of convex surfaces. Pletscher teaches in fig.12 a motor comprising stator and a rotor wherein the rotor (A) comprises coils that may be made stationary (pg.3 Col.1, line 5-9) for the purpose of reducing manufacturing cost. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the motor of APA and Hayakawa with the teaching of Pletscher for the purpose of reducing manufacturing cost.

Response to Arguments

5. Applicant's arguments filed 9/22/03 have been fully considered but they are not persuasive.

In response to the applicants argument that " Yamada fails to show a unitary permanent magnet (3d) having convex and curve portions is noted.

However, Prior art clearly show in fig.4 unitary permanent magnet having convex and curve surfaces (col. 4 line 0017).

6. It should be emphasized that "apparatus claims must be structurally distinguishable from the prior art." MPEP 2114. In *In re Danly*, 263 F. 2d 844, 847, 120 USPQ 528, 531 (CCPA 1959) it was held that apparatus claims must be distinguished from prior art in terms of structure rather than function. In *Hewlett-Packard Co v Bausch & Lomb Inc.*, 909 F.2d 1464, 1469, 15 USPQ2d 1525, 1528 (Fed. Cir. 1990), the court held that: "Apparatus claims cover what a device is, not what it does." (emphases in original). To emphasize the point further, the court added: "An invention need not operate differently than the prior art to be patentable, but need only be different" (emphases in original).

7. Applicant's arguments with respect to claims 9 and 11 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karen B Addison whose telephone number is 703-306-5855. The examiner can normally be reached on 8:00 to 4:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on 703-308-1317. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

KBA
9/26/03

Thomas M. Dougherty